

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III 1650 Arch Street

Philadelphia, Pennsylvania 19103-2029

DEC - 1 2014

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Bernie Marshall Lead Environmental Engineer Braskem American, Inc. 200 Big Sandy Run Road Kenova, West Virginia 25530

Dear Mr. Marshall:

The United States Environmental Protection Agency (EPA) hereby requires Braskem American, Inc. ("Braskem" or "the Facility") to provide certain information as part of an EPA investigation to determine the Clean Air Act (CAA or the Act) compliance status of the Neal Plant located at 200 Big Sandy Road; Kenova, West Virginia 25530.

Pursuant to Section 114(a) of the CAA, 42 U.S.C. Section 7414(a), the Administrator of EPA is authorized to require any person who owns and/or operates an emission source to establish and maintain records, make reports and provide such other information as he may reasonably require for the purposes of determining whether such person is in violation of any provision of the Act. In order for EPA to determine whether a violation has occurred, you are hereby required, pursuant to Section 114(a) of the CAA, to provide responses to the following questions and requests for information regarding your facility. Therefore, you are hereby required to respond to questions and requests for information in Enclosure 2. (See Enclosure 1 for instructions and definitions). All information submitted in response to this request must be certified as true, correct, accurate and complete by an individual with sufficient knowledge and authority to make such representations on behalf of Braskem. On the last page of your response(s) to this Questionnaire, please include the certification contained in Enclosure 3.

Failure to provide the required information may result in the issuance of an Order requiring compliance with the requirements, or the initiation of a civil action pursuant to Section 113(b) of the Act, 42 U.S.C. Section 7413(b). In addition, Section 113(c)(2) of the Act provides that any person who knowingly makes any false material statement, representation, or certification in, or omits material information from any document required pursuant to this Act shall upon conviction be punished by a fine pursuant to Title 18 of the United States Code, or by imprisonment for not more than two years, or both. The information you provide may be used by EPA in administrative, civil and criminal proceedings.

Under 40 C.F.R. Part 2, Subpart B, you may assert a claim of business confidentiality for any portion of the submitted information. You must specify the page, paragraph, and sentence when identifying the information subject to your claim.

This request is not subject to the Paperwork Reduction Act, 44 U.S.C. § 3501 et seq., because it seeks collection of information from specific individuals or entities as part of an administrative action or investigation. To aid in our electronic record keeping efforts, please provide your response to this request for information without staples. Paper clips, binder clips, and 3-ring binders are acceptable.

EPA requires Braskem to submit the information requested in Enclosure 2 no later than thirty (30) calendar days after receipt of this letter. EPA requires that Braskem report any changes or revisions to the information supplied within seven (7) days after the change or revision is made. This requirement to provide EPA with changed or revised information shall remain in effect until EPA provides Braskem with written notice of its termination. Please submit your response to this request to:

Ms. Zelma Maldonado, Associate Director U.S. Environmental Protection Agency Region III Office of Air Enforcement & Compliance Assistance (3AP20) 1650 Arch Street Philadelphia, PA 19103-2029

If you have any questions regarding this information request, please contact Kristen Hall from Office of Air Enforcement & Compliance Assistance staff at 215-814-2168.

Sincerely,

David Arnold, Acting Director Air Protection Division

Cc: Fred Fisher, Braskem America 1735 Market Street Philadelphia, PA 19103

ENCLOSURE 1

A. INSTRUCTIONS

- 1. Please provide a separate narrative response to each question and subpart of a question set forth in this Information Request. Please provide the requested non-narrative information in spreadsheet format, preferably in Excel.
- 2. Indicate on each document produced in response to this Information Request, or in some other reasonable manner, the number of the question to which it corresponds.
- 3. Provide as much information possible to completely answer each question. This includes all supporting documentation, such as performance test reports, inspection records, memorandums, facility records, etc. Failure to completely respond to any questions may increase the time necessary to determine compliance with all applicable regulations.
- 4. For each document provided in response to these questions, provide an accurate and legible copy, which can be used to determine the completeness of this request. For any information submitted electronically, clearly label to which question(s) the data is responsive.
- 5. When a response is provided in the form of a number, specify the units of measure of the number in a precise manner.
- 6. Where documents or information necessary for a response are neither in your possession nor available to you, indicate in your response why such documents or information is not available or in your possession and identify any source that either possesses or is likely to possess such information.

B. **DEFINITIONS**

- 1) All terms used in the Information Request will have their ordinary meaning unless such terms are defined in the Act, 42 U.S.C. § 7401 or 40 CFR Part 60, Part 61 or Part 63.
- 2) EPA Region III includes the states of Maryland, Pennsylvania, Virginia, West Virginia, Delaware and the District of Columbia.
- 3) "Flare" is broadly defined as any open combustion unit (i.e., lacking an enclosed combustion chamber) whose combustion air is provided by uncontrolled ambient air around the flame, and that is used as a control or safety device. A flare may be equipped with a radiant heat shield (with or without a refractory lining), but is not equipped with a flame air control damping system to control the air/fuel mixture. In addition, a flare may also use auxiliary fuel. The combustion flame may be elevated or at ground level.
- 4) "Pilot Gas" means gas injected at a flare tip to maintain a flame.
- 5) "Purge Gas" or "Sweep Gas" means all gas introduced prior to the Flare tip to protect against oxygen buildup in the Flare header and/or to maintain a constant flow of gas through the flare and out the tip.

- 6) "Supplemental Gas" means all gas introduced to raise the heating value of Waste Gas.
- 7) "Vent Gas" means all gases found just prior to the flare tip. This gas includes all Waste Gas, Purge Gas, Supplemental Gas, nitrogen and hydrogen, but does not include Pilot Gas or steam.
- 8) "Waste Gas" means all gases routed to a flare for combustion, excluding Purge Gas, Supplemental Gas, Pilot Gas, and steam.

ENCLOSURE 2

This request and all requests below seek information regarding all facility devices meeting the definition of flare, and the emission points designated in Braskem's Title V Permit Number(s) R30-009900010-2010 (MM01); and R30-0990010-2012(MM02) issued by the West Virginia Department of Environmental Protection, Division of Air Quality:

- 1. For each day beginning on January 1, 2010, until the date of your receipt of this request, list the periods of time (date, start time, and end time) that Waste Gas, Purge Gas, and/or Supplemental Gas was routed to each flare at the Braskem facility (i.e., "venting periods"). Please identify each vent gas in the response, if possible.
- 2. For each venting period listed in response to paragraph 1 above, provide the average heating value, in British Thermal Units per standard cubic foot (BTU/scf), of the stream that was vented to each facility flare. The averaging time shall not be greater than one hour. If the heating value is not measured, you shall use the best means available to estimate it. Provide a narrative explanation, example calculations and appropriate supporting documentation describing how you arrived at your response.
- 3. For each venting period listed in response to paragraph 1 above, provide the average exiting velocity, in meters per second (m/sec) or foot per second (ft/sec), of the stream that was vented to each facility flare. The averaging time shall not be greater than one hour. If the exiting velocity is not measured, you shall use the best means available to estimate it. Provide a narrative explanation, example calculations and appropriate supporting documentation describing how you arrived at your response.
- 4. For each venting period listed in response to paragraph 1 above, provide the average mass flow rate of the Vent Gas, in pounds per hour (lbs/hr), that was vented to each facility flare. The averaging time shall be no more than one hour. If the mass flow rate is not measured, you shall use the best means available to estimate it. Provide a narrative explanation, example calculations and appropriate supporting documentation describing how you arrived at your response.
- 5. For each venting period listed in response to paragraph 1 above, provide the average rate at which steam and/or air was being added to each facility flare, in lb/hr for steam and/or scf/hr for air, at all locations on the flare (i.e., the sum of seal, upper, lower, winterizing, etc.) during each venting period. The averaging time shall not be greater than one hour. If the steam and/or air flow is not measured, you shall use the best means available to estimate it. Provide a narrative explanation, example calculations and appropriate supporting documentation describing how you arrived at your response.
- 6. For each venting period listed in response to paragraph 1 above, provide the average steam-to-Vent Gas or air-to-Vent Gas ratio (lb steam/lb Vent Gas or scf of air/lb of Vent Gas) during any release to each facility flare. The averaging time shall be no more than one hour. Provide a narrative explanation, example calculations and appropriate supporting documentation describing how you arrived at your response.
- 7. Provide a one-hour average of the concentration of each constituent in the Vent Gas during venting periods for the dates beginning one month prior to your receipt of this request, until the date of receipt of your request.

- 8. Provide a list of the primary constituents in the Vent Gas routed to each flare for venting periods since January 1, 2010 through the present, and an estimated range of each constituent's concentration. Except for the period specified in paragraph 7, you need not determine the exact concentration of all compounds for each period of time, but only the most prominent compounds and an approximate range of concentration.
- 9. For each facility flare, provide the minimum steam or air addition rate, in lb/hr for steam and/or scf/hr for air, at all locations on the flare (seal, upper and lower). To the extent that the minimum steam or air addition rate changes on a seasonal basis, state the minimum rate for each season and the time periods during which each season's minimum rate applies. Provide appropriate supporting documentation.
- 10. Provide copies of any and all documents in your possession, custody, or control that prescribe or recommend the amount of steam or air to be added to each facility flare. Provide a copy of the entire document if, within the document, it states the maximum steam or air rate, minimum steam or air rate, steam or air addition rate associated with a vent scenario, general steam-to-vent gas or air-to-organic gas/vent gas ratio, or any other reference to steam addition.
- 11. For each facility flare, state with specificity which, if any, federal and/or state regulations regulate/apply to each flare. If any facility flare is listed in a permit issued under federal and/or state regulations, provide an electronic copy, preferably in "PDF", of each currently effective permit.
- 12. For each facility flare, state whether the flare is configured to receive gases/vapors from one or more pressure relief device(s), which is a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment.
- 13. For each facility flare, state whether the flare and its associated closed vent system is used as the method of compliance with any federal regulation, including without limitation, the Standards of Performance for New Stationary Sources found at 40 C.F.R. Part 60, the National Emission Standards for Hazardous Air Pollutants found at 40 C.F.R. Part 61, and the National Emission Standards for Hazardous Air Pollutants for Source Categories found at 40 C.F.R. Part 63, specifically including without limitation any leak detection and repair (LDAR) provisions promulgated under these Parts such as 40 C.F.R. § 60.482-4(c), or 40 C.F.R. § 63.165(c). In each such case, identify the process unit or equipment that is/are the "affected facility" under the applicable Part and the specific Subpart that applies to the "affected facility."
- 14. For each facility flare, provide a copy of all test reports for tests conducted to demonstrate the net heating value and exit velocity performed for any reason.
- 15. Beginning January 1, 2010 through the present, provide documentation demonstrating the presence of a flare pilot flame for each facility flare.
- 16. Beginning January 1, 2010 through the present, provide all visible emission records for each facility flare.

- 17. Beginning January 1, 2010, provide a list and description of any violations Braskem has incurred from the West Virginia Department of Environmental Protection (WVDEP) regarding operation of their flares.
- 18. For each facility flare, please identify if the flare has the following equipment and the locations of any such pieces of equipment as related to the flare and incoming steam and gas lines. Please include a process flow diagram indicating the location of each item for each flare.
 - a. a steam flow meter,
 - b. a waste gas flow meter,
 - c. a Molecular Weight meter,
 - d. a thermo couple,
 - e. an auto igniter,
 - f. a pilot and or flame alarm;
 - g. a video or IR camera for Flame monitoring
- 19. Please narratively describe Braskem's Leak Detection and Repair (LDAR) program with respect to 40 CFR Part 60 Subparts VV and DDD; any other State or Federal LDAR programs Braskem may be subject too. Please include description of leak detection equipment used, any contractor used and the facility's process for identifying LDAR components, monitoring, and record keeping for all components in the LDAR Program.
- 20. Please narratively describe Braskem's LDAR component repair program, and Braskem's delay of repair program.
- 21. Please provide the past Five (5) years of LDAR results, raw data (i.e. LeakDas, FEMS, etc.) and calibration records, to the extent possible. If using an electronic database for raw data this data can be easily downloaded into an EXCEL format, and is the preferred format for this request.
- 22. Please provide the last two (2) years of all required LDAR semi-annual reports required under 40 CFR Part 60 Subparts VV and DDD; and any other State or Federal LDAR programs Braskem may be subject too.
- 23. In Braskem's Semi Annual Title V Certification report for the period 01/01/2013 06/30/2013 for the Neal Plant, Braskem reported the following "During a review of the identified equipment, twenty (20) valves in the Distillation (Area 11) and Polymerization (Area 91) were found not to be identified in the facility's fugitive equipment program database and therefore had not been previously monitored as required by NSPS VV." For the components identified above please explain;
 - a. What type of valves were these components? eg light liquid or gas vapor etc.?
 - b. When (date) were these valves originally installed in the Distillation (Area 11) and Polymerization (Area 91)?
 - c. When (date) were these valves discovered to not be part of Braskem's LDAR program?
- 24. In Braskem's Semi Annual Title V Certification report for the period 01/01/2013 06/30/2013 for the Neal Plant, Braskem reported the following "Records indicated that three (3) light liquid or gas/vapor valves were incorrectly identified as exempt (e.g.,

difficult to monitor) from monitoring in the LDAR database and, as a result, were not monitored on a quarterly basis."

For the components identified above please explain;

- a. When (date) were these valves discovered to have been classified incorrectly as exempt?
- b. When (date) were these valves originally classified as exempt?

ENCLOSURE 3:

STATEMENT OF CERTIFICATION

[This Certification is for signature by the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or another executive with authority to perform similar policy or decision-making functions of the corporation.]

Braskem is submitting the enclosed documents in response to the U.S. Environmental Protection Agency's ("EPA") request for information, issued pursuant to Section 114(a) of the Clean Air Act, to determine whether the facility is in compliance with the Clean Air Act.

I certify that I am fully authorized by Braskem to provide the above information on its behalf to EPA.

I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true, correct, accurate and complete. I am aware that there are significant penalties for submitting false statements and information, or omitting required statements and information, including the possibility of fines and imprisonment for knowing violations.

Date:		
Name (Printed):		
Signature:		
Title:	**	

ENCLOSURE 4:

Confidential Business Information (CBI)

You may assert a business confidentiality claim covering all or part of the information you provide in response to this information request for any business information entitled to confidential treatment under Section 114(c) of the Clean Air Act (the Act), 42 U.S.C. § 7414, and 40 C.F.R. Part 2, subpart B. Under Section 114(c) of the Act, you are entitled to confidential treatment of information that would divulge methods or processes entitled to protection as trade secrets. Under 40 C.F.R. Part 2, subpart B, business confidentiality means "the concept of trade secrecy and other related legal concepts which give (or may give) a business the right to preserve the confidentiality of business information and to limit its use or disclosure by others in order that the business may obtain or retain business advantages it derives from its rights in the information." See 40 C.F.R. § 2.201(e).

Information covered by a claim of business confidentiality will be disclosed by EPA only to the extent, and by means of the procedures, set forth in Section 114(c) of the Act and 40 C.F.R. Part 2, subpart B. EPA will construe your failure to furnish a business confidentiality claim with your response to this information request as a waiver of that claim, and the information may be made available to the public without further notice to you.

To assert a business confidentiality claim, you must place on (or attach to) all information you desire to assert as business confidential either a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret," "proprietary," or "company confidential" at the time you submit your response to this information request. Allegedly confidential portions of otherwise non-confidential documents should be clearly identified, and may be submitted separately to facilitate identification and handling by EPA. You should indicate if you desire confidential treatment only until a certain date or until the occurrence of a certain event.

The criteria EPA will use in determining whether material you claim as business confidential is entitled to confidential treatment are set forth at 40 C.F.R. §§ 2.208 and 2.301. These regulations provide, among other things, that you must satisfactorily show that: (1) the information is within the scope of business confidentiality as defined at 40 C.F.R. § 2.201(e), (2) that you have taken reasonable measures to protect the confidentiality of the information and that you intend to continue to do so, (3) the information is not and has not been reasonably obtainable by legitimate means without your consent, and (4) the disclosure of the information is likely to cause substantial harm to your business's competitive edge. See 40 C.F.R. § 2.208 (a)-(d). Emission data, as defined at 40 C.F.R. § 2.301(a)(2), is expressly not entitled to confidential treatment under 40 C.F.R. Part 2, subpart B. See 42 U.S.C. § 7414(c); 40 C.F.R. § 2.301(e).

If you assert a claim of business confidentiality in connection with information and documents forwarded in response to this request for information, in accordance with 40 C.F.R. § 2.204(e)(4), EPA is requesting that you answer the following questions with respect to any information or document for which you assert a claim of business confidentiality:

1. What specific portions of the information are alleged to be entitled to confidential treatment? Specify by page, paragraph, and sentence when identifying the information subject to your claim.

- For what period of time do you request that the information be maintained as confidential, e.g., until a certain date, until the occurrence of a specified event, or permanently? If the occurrence of a specific event will eliminate the need for confidentiality, specify that event. Additionally, explain why the information should be protected for the time period you've specified.
- What measures have you taken to protect the information claimed as confidential from undesired disclosure? Have you disclosed the information to anyone other than a governmental body or someone who is bound by an agreement not to disclose the information further? If so, why should the information still be considered confidential?
- Is the information contained in any publicly available material such as the Internet, publicly available databases, promotional publications, annual reports, or articles? Is there any means by which a member of the public could obtain access to the information? Is the information of a kind that you would customarily not release to the public?
- Has any governmental body made a determination as to the confidentiality of the information? If so, please attach a copy of the determination.
- For each category of information claimed as confidential, explain with specificity whether disclosure of the information is likely to result in substantial harm to your competitive position. Explain the specific nature of those harmful effects, why they should be viewed as substantial, and the causal relationship between disclosure and such harmful effects. How could your competitors make use of this information to your detriment?
- Is there any other explanation you deem relevant to EPA's determination of your business confidentiality claim that is not covered in the preceding questions? If so, you may provide such additional explanation.

You must furnish comments to the above questions concurrent with your response to this information request if you have claimed any information as business confidential. See 40 C.F.R. § 2.204(e)(2). Pursuant to 40 C.F.R. § 2.205(b)(2), you may request an extension of this deadline. EPA will construe your failure to furnish timely comments as a waiver of your confidentiality claim, consistent with 40 C.F.R. § 2.204(e)(1).

Pursuant to 40 C.F.R. § 2.205(c), you are hereby advised that information you submit as part of your comments may be regarded by EPA as entitled to confidential treatment if, when it is received by EPA, it is marked in accordance with 40 C.F.R. § 2.203(b). As required by 40 C.F.R. § 2.204(e)(6), you may assert a business confidentiality claim covering all or part of your response to these questions, as provided in 40 C.F.R. § 2.203(b). Information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in Section 114(c) of the Clean Air Act (the Act) and 40 C.F.R. Part 2. EPA will construe the failure to furnish a confidentiality claim with your comments as a waiver of that claim, and the information may be made available to the public without further notice to you.